

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-15 (canceled)

16. (new) An electrical distribution system for a vehicle including a first battery for generating a first voltage level and a second battery for generating a second voltage level that is substantially higher than the first voltage level, the system comprising:

first and second DC/DC converters for transferring power to first and second loads in response to the first and second voltage levels, wherein the first load is configured to operate at a first increased power level rating that is greater than the amount of power that is capable of being provided by the first DC/DC converter and the second load is configured to operate at a second increased power level rating that is greater than the amount of power that is capable of being provided by the second DC/DC converter; and

a controller operably coupled to each of the first and second DC/DC converters and to each of the first and second loads and configured to:

detect the amount of power that is to be consumed by each of the first and the second loads; and

selectively control the first and the second DC/DC converters to cooperate with each other to generate enough power to satisfy at least one of the first increased power level rating of the first load and the second increased power level rating of the second load in response to detecting that the amount of power that is to be consumed by the at least one of the first and the second loads is approaching the at least one of the first and the second increased power level ratings.

17. (new) The system of claim 16 further comprising a third DC/DC converter for transferring power to the first and second loads and to a third load, wherein the third load is configured to operate at a third increased power level rating that is greater than the amount of power that is capable of being provided by the third DC/DC converter.

18. (new) The system of claim 17 wherein the controller is operably coupled to the third DC/DC converter and to the third load and is further configured to selectively control at least two of the first, the second, and the third DC/DC converters to cooperate with each other to generate enough power to satisfy at least one of the first increased power level rating of the first load, the second increased power level rating of the second load, and the third increased power level rating of the third load in response to detecting that the amount of power that is to be consumed by the at least one of the first, the second and the third loads is approaching the at least one of the first, the second, and the third increased power level ratings.

19. (new) The system of claim 18 wherein the controller is further configured to determine which of the at least one of the first, the second and the third DC/DC converters is generating the lowest amount of power and to control the at least one of the first, the second, and the third DC/DC converters that is generating the lowest amount of power to cooperate with the at least one of the first, the second and the third DC/DC converters to generate enough power to satisfy the at least one of the first, second, and third increased power level ratings.

20. (new) The system of claim 16 wherein the first DC/DC converter is capable of generating a first maximum amount of power and the second DC/DC converter is capable of generating a second maximum amount of power, wherein the first maximum amount of power is equal to the second maximum amount of power

21. (new) The system of claim 20 wherein each of the first maximum amount of power and the second maximum amount of power is less than each of the first power rating level of the first load and the second power rating level of the second load.

22. (new) The system of claim 16 wherein the first and the second DC/DC converters are bi-directional.

23. (new) An electrical distribution system for a vehicle including a first battery for generating a first voltage level and a second battery for generating a second voltage level that is substantially higher than the first voltage level, the system comprising:

first, second, and third DC/DC converters for transferring power to first, second and third loads in response to the first and second voltage levels, wherein the first load is configured to operate at a first increased power level rating that is greater than the amount of power that is capable of being produced by the first DC/DC converter, the second load is configured to operate at a second increased power level rating that is greater than the amount of power that is capable of being produced by the second DC/DC converter, and the third load is configured to operate at a third increased power level rating that is greater than the amount of power that is capable of being produced by the third DC/DC converter; and

a controller operably coupled to each of the first, the second, and the third DC/DC converters and to each of the first, the second, and the third loads and configured to:

detect the amount of power that is to be consumed by each of the first, the second, and the third loads;

selectively control at least two of the first, the second, and the third DC/DC converters to cooperate with each other to generate enough power to satisfy at least one of the first increased power level rating of the first load, the second increased power level rating of the second load, and the third increased power level rating of the third load in response to detecting that the amount of power that is to be consumed by the at least one of the first, the second, and the third loads is approaching the at least one of the first, the second, and the third increased power level ratings.

24. (new) The system of claim 23 wherein the controller is further configured to determine which of the at least one of the first, the second, and the third DC/DC converters is generating the lowest amount of power and to control the at least one of the first, the second, and the third DC/DC converters that is generating the lowest amount of power to cooperate with the at least one of the first, the second, and the third DC/DC converters to generate enough power to satisfy the at least one of the first, second, and third increased power level ratings.

25. (new) The system of claim 23 wherein the first DC/DC converter is capable of generating a first maximum amount of power, the second DC/DC converter is capable of generating a second maximum amount of power, and the third DC/DC converter is capable of generating a third maximum amount of power, wherein the first maximum amount of power,

the second maximum amount of power, and the third maximum amount of power are equal to one another.

26. (new) The system of claim 25 wherein each of the first maximum amount of power, the second maximum amount of power, and the third maximum amount of power is less than each of the first power rating level of the first load, the second power rating level of the second load and the third power rating level of the third load..

27. (new) The system of claim 23 wherein the first, the second, and the third DC/DC converters are bi-directional.

28. (new) An electrical system for a vehicle including a first battery for generating a first voltage level; a second battery for generating a second voltage level that is substantially higher than the first voltage level; and first, second, and third DC/DC converters for transferring power to first, second, and third loads in response to the first and second voltage levels, wherein the first load is configured to operate at a first increased power level rating that is greater than the amount of power that is capable of being produced by the first DC/DC converter, the second load is configured to operate at a second increased power level rating that is greater than the amount of power that is capable of being produced by the second DC/DC converter, and the third load is configured to operate at a third increased power level rating that is greater than the amount of power that is capable of being produced by the third DC/DC converter, the system comprising:

a controller operably coupled to each of the first, the second, and the third DC/DC converters and to each of the first, the second, and the third loads and configured to:

detect the amount of power that is to be consumed by each of the first, the second, and the third loads;

determine which of the at least one of the first, the second, and the third DC/DC converters is generating the lowest amount of power; and

selectively control the at least one of the first, the second, and the third DC/DC converters that is generating the lowest amount of power to cooperate with the at least one of the first, the second, and the third DC/DC converters to generate enough power to

satisfy the at least one of the first, second, and third increased power level ratings in response to detecting that the amount of power that is to be consumed by the at least one of the first and the second loads is approaching the at least one of the first, the second, and the third increased power level ratings.